

REMARKS

In accordance with the foregoing, claims 1, 11, 32 and 35-37 have been amended while claims 3, 13, 15, 20 and 34 have been cancelled without prejudice or disclaimer. No new matter is being presented. Therefore, claims 1, 2, 5-12, 16-19, 21-26, 32, 33 and 35-37 are pending and reconsideration is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §112:

Claim 37 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. However, applicants respectfully submit that claim 37 is supported by FIG. 2 and that, in any case, the claim has been amended such that the phrase in question has been removed.

SUPPORT FOR THE INDEPENDENT CLAIMS:

For convenience of examination, and as discussed in the interview held with the Examiner on January 25, 2007, it is noted that the claims and, in particular, the independent claims, find support in the specification in FIG. 2 which clearly illustrates the claimed subject matter.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1-3, 5-13, 15-20, 22-25 and 32-37 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Spahn (U.S. Patent 6,237,529). These rejections are overcome.

Regarding the rejection of claim 1, it is noted that claim 1 recites fixing portions suspended from an inner wall of the main body and an inner member. The inner member is supported at positions along an outer circumference thereof by the fixing portions to face the nozzle, and has one or more separate openings formed therein along the outer circumference thereof and between the supporting positions of the fixing portions. The borders of the openings are defined by separate notches in the outer circumference and the inner wall of the main body.

Spahn, on the other hand, discloses a rectangular baffle board 30 which is suspended from a top plate 20 by baffle supports 32 and 34. The baffle board 30 is surrounded on all sides by a continuous opening between sides of the baffle board 30 and the inner walls 12 and 14 of

the housing 10.

As such, since the opening disclosed by the reference is continuous, it is submitted that the reference does not disclose the claimed separate openings which are separated from one another by the supporting positions of the fixing portions. Further, since the baffle board 30 does not include notches in the baffle board 30, it is further submitted that the recitation of the notches in the outer circumference of the inner member are not disclosed by the reference. Still further, it is submitted that the Spahn baffle board 30 is suspended from a top plate 20 and not from the side walls 12 and 14, which each appear to correspond to the claimed inner wall.

Thus, applicants respectfully assert that claim 1 is patentably distinguished from the reference to Spahn. Therefore, this rejection is believed to be overcome.

Regarding the rejection of claims 11, 32, 35, 36 and 37 it is noted that these claims recite similar features as claim 1 and that, therefore, the rejections of these claims are overcome for similar reasons as set forth above.

Regarding the rejections of claims 2, 5-12, 16-19, 22-25 and 33, it is noted these claims depend from claims 1, 11 and 32 and that the rejections of these claims are overcome for at least the reasons set forth above.

Claims 1-2, 5-12, 15-20, 22-26, 34 and 37 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Mori (Japan 61-156809) and claims 1-2, 5-12, 15-20, 22-26, 34 and 37 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Morioka (Japan 61-132589). Both of these rejections are overcome.

According to the reference to Mori, the shielding material 4 is supported by the stepped portion 1b of the device. The stepped portion 1b is nothing more than a step in the inner wall of the device on which the shielding material 4 lays. It does not include fixing portions as in the claimed invention, nor is the shielding material 4 suspended from an inner wall of the device by fixing portions as in the claimed invention.

Similarly, in Morioka, the shielding plates 2 are supported by protrusion portions 3 that are similar in form and function to the stepped portion disclosed by Mori. As such, the reference to Morioka does not include fixing portions as in the claimed invention, nor does the reference disclose shielding plates that are suspended from an inner wall of the device as in the claimed invention.

Thus, it is believed that the claims are patentably distinguished from the references. Therefore, the rejections of the claims are believed to be overcome.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1-3, 5-13, 15-20, 22-26, 32-34 and 37 are rejected under 35 U.S.C. §103(a) as obvious over Shen (U.S. Patent 2,793,609) taken in view of Dlouhy (German Patent 2612424) and Spahn (U.S. Patent 6,237,529). However, with the teachings of Spahn established, as discussed above, it is noted that neither of the additional references cures the defects of Spahn that are noted above.

In particular, Shen, which discloses a baffle plate that is suspended within a crucible with its sides completely separated from inner walls of the crucible, fails to include the claimed separate openings and fixing portions.

Furthermore, Dlouhy teaches a board that is hung in a space from a top plate by wings at its ends. Holes are defined in a lattice pattern within opposite ends of the flat interior surface of the board. In other words, Dlouhy does not disclose a wall of a main body and fails to show that the holes could be bordered by a notched outer edge of the board (since the holes are defined within the board) and a wall of a main body (which is not shown).

Thus, the claims are believed to be patentably distinguished from the cited references. Therefore, the rejections of these claims are believed to be overcome.

Claim 37 is rejected under 35 U.S.C. §103(a) as being unpatentable over Shen (U.S. Patent 2,793,609) taken in view of Dlouhy (German Patent 2612424) and Spahn (U.S. Patent 6,237,529) in view of Witzman (U.S. Patent 6,202,591). This rejection is overcome.

It is noted that claim 37 has been amended to recite a plurality of separate openings bordered by a notched outer edge of the baffle board and the wall of the main body. As noted above, neither Shen nor Spahn teach a plurality of openings. It is further noted that the newly cited references to Dlouhy and Witzman also fail in that capacity.

As an example, as noted above, Dlouhy teaches a board that is hung in a space from a top plate by wings at its ends. Holes are defined in a lattice pattern within opposite ends of the flat interior surface of the board. In other words, Dlouhy does not disclose a wall of a main body and fails to show that the holes could be bordered by a notched outer edge of the board (since the holes are defined within the board) and a wall of a main body (which is not shown).

Similarly, Witzman discloses a deposition apparatus including a flow restricting baffle in a chimney of the apparatus and a floating baffle within the crucible. In both cases, as shown in

FIG. 3A of the reference, the two baffles include holes that are defined within the baffle and not on their outer edges, as claimed.

Thus, claim 37 is patentably distinguished from any combination of the references. Therefore, applicants respectfully assert that the rejection of claim 37 is overcome.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Shen (U.S. Patent 2,793,609) taken in view of Dlouhy (German Patent 2612424) and Spahn (U.S. Patent 6,237,529) for the reasons stated above, and taken in further view of Tiedje (U.S. Patent 5,944,903) (see Fig. 6). However, with the teachings of Spahn established as discussed above, it is noted that neither of the additional references cures the defects of Spahn that are noted above. Therefore, the rejection of claim 21 is believed to be overcome.

Claim 37 is rejected under 35 U.S.C. §103(a) as being unpatentable over Spahn (U.S. Patent 6,237,529) in view of Witzman (U.S. Patent 6,202,591). However, this rejection is overcome for similar reasons as set forth above.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Spahn (U.S. Patent 6,237,529) taken in view of Van Slyke (U.S. Patent Publication 2003/0101937) (paragraph 53). However, with the teachings of Spahn established as discussed above, it is noted that the additional reference to Van Slyke does not cure the defects of Spahn that are noted above. Therefore, the rejection of claim 21 is believed to be overcome.

Claims 3 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Dlouhy (German 2612424) or Spahn (U.S. Patent 6,237,529). However, since claims 3 and 13 have been cancelled, this rejection is moot.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Tiedje (U.S. Patent 5,944,903) (see Fig. 6). However, since claim 21 depends from claim 1 and since Mori, which has been described above and clearly does not disclose the claimed invention, and Tiedje, which is cited as merely providing a teaching measuring a crucible temperature and which does not cure the defects of Mori, cannot be combined to render the claim 1 obvious, this rejection is believed to be overcome.

Claims 32 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Spahn (U.S. Patent 6,237,529). However, since Mori does not cure the defects of Spahn, as discussed above, it is believed that this rejection is overcome.

Claim 37 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan

61-156809) taken in view of Witzman (U.S. Patent 6,202,591). However, since Mori fails to cure the defects of Witzman, as discussed above, this rejection is overcome for similar reasons as set forth above.

Claims 1, 2, 5-12, 15-20, 22-26, and 34-37 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Mashita (Japan 60-043480). However, since Mashita, which discloses a similar device as Mori, and, therefore, does not cure the defects of Mori, it is believed that these rejections are overcome.

Claims 3 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Dlouhy (German 2612424) or Spahn (U.S. Patent 6,237,529), and taken in further view of Mashita (Japan 60-043480). However, since claims 3 and 13 have been cancelled, this rejection is moot.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Tiedje (U.S. Patent 5,944,903) (see Fig. 6), and taken in further view of Mashita (Japan 60-043480). However, since claim 21 depends from claim 1 and since Mori, which has been described above and clearly does not disclose the claimed invention, and Tiedje, which is cited as merely providing a teaching measuring a crucible temperature and which does not cure the defects of Mori, along with Mashita, which is similar to Mori, cannot be combined to render the claim 1 obvious, this rejection is believed to be overcome.

Claims 32 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Mashita (Japan 60-043480) and in further view of Spahn (U.S. Patent 6,237,529). However, since neither Mori nor Mashita cure the defects of Spahn, as discussed above, and since Spahn does not cure the defects of Mori and Mashita, as discussed above, it is believed that this rejection is overcome.

Claim 37 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mori (Japan 61-156809) taken in view of Mashita (Japan 60-043480) and in further view of Witzman (U.S. Patent 6,202,591). However, since Morioka fails to cure the defects of Witzman, as discussed above, this rejection is overcome for similar reasons as set forth above.

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Morioka (Japan 61-132589) taken in view of Tiedje (U.S. Patent 5,944,903) (see Fig. 6). However, since claim 21 depends from claim 1 and since Morioka, which has been described above and clearly does not disclose the claimed invention, and Tiedje, which is cited as merely providing a teaching measuring a crucible temperature and which does not cure the defects of Morioka,

cannot be combined to render the claim 1 obvious, this rejection is believed to be overcome.

Claims 32-33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Morioka (Japan 61-132589) in view of Spahn (U.S. Patent 6,237,529). However, since Morioka does not cure the defects of Spahn, as discussed above, it is believed that this rejection is overcome.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited. If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Finally, if there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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3/23/07

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